

SUB A¹

What is claimed is:

1. A method for controlling power consumption in a communication device, the method comprising:
 - 5 powering down at least a portion of a receiver of the communication device for a selected period of time; and
 - when the selected period of time expires, powering up the at least a portion of a receiver to check for incoming data.
- 10 2. The method of claim 1, wherein powering down the at least a portion of a receiver for a selected period of time comprises powering down the receiver for a period of time sufficient to allow detection of an attempted retransmission of a packet.
3. The method of claim 1, wherein powering down the at least a portion of a
- 15 receiver for a selected period of time comprises setting and decrementing a counter.
4. The method of claim 3, and further comprising synchronizing the counter with a counter disposed at a source of the incoming data.
- 20 5. The method of claim 1, wherein powering up the at least a portion of a receiver to check for incoming data comprises:
 - powering up the receiver;
 - checking for incoming data;
 - when no data is detected, checking for incoming data after another selected
 - 25 period of time;
 - when incoming data is detected, processing the data; and
 - when no incoming data is detected or a last data message is received, powering down the receiver for a selected period of time.

SUB A²

- 30 6. A communication device, comprising:

a transmitter that transmits data;
a receiver that receives data over a communications link;
a signal processing circuit, coupled to the transmitter and receiver, to prepare data for transmission and to process data received by the receiver; and
5 a control circuit, responsive to the signal processor, that selectively powers at least a portion of the receiver down for a period of time and that powers up the at least a portion of a receiver to check for incoming data when the selected period of time expires.

10 7. The communication device of claim 6, wherein the control circuit includes a counter that is synchronized with a counter at the source of the incoming data.

8. The communication device of claim 6, wherein the control circuit powers up the receiver to check for incoming data for at least a selected period of time.

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9. The communication device of claim 6, wherein the control circuit selectively powers down the at least a portion of a receiver when a selected period of time after power-up has expired or when a signal indicates that a current data transmission is complete.

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10. The communication device of claim 6, wherein the signal processing circuit comprises a signal processing circuit for a cable modem.

11. The communication device of claim 6, wherein the control circuit powers down the at least a portion of a receiver for a period of time sufficient to allow detection of an attempted retransmission of a packet.

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12. A communication network, comprising:
a head end communication device;

at least one remote communication device that is communicatively coupled to the head end communication device; and

wherein each of the at least one remote communication device includes a control circuit that powers down a receiver of the at least one remote communication device for a selected period of time and that powers up the receiver of the at least one remote communication device to check for incoming data from the head end communication device when the selected period of time expires.

13. The communication network of claim 11, wherein each of the at least one remote communication device is powered over the connection between the head end communication device and the at least one remote communication device.

14. The communication network of claim 11, wherein each of the at least one remote communication device comprises a cable modem.

15. The communication network of claim 11, wherein each of the remote communication device is communicatively coupled to the head end communication device over a communication network.

16. The communication network of claim 11, wherein the head end communication device transmits data with a protocol that allows for retransmission of data that is not acknowledged by the at least one remote communication device.

17. A power control circuit for a communication device, the power control circuit comprising:

a counter that establishes a selected time period for powering down a receiver of the communication device; and

a processor, coupled to the counter, that is programmed to control the reset of the counter, to power down the receiver, and to power up the receiver to check for incoming data when the counter indicates that the selected time period has expired.

18. The power control circuit of claim 17, wherein the counter establishes a time period that is sufficient to allow detection of a data packet that is retransmitted by another communication device when no acknowledgment signal is received by the other communication device.

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19. The power control circuit of claim 17, wherein the processor is programmed to power up the receiver for a selected time period to check for incoming data.

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